

ABSTRACT OF THE DISCLOSURE

A silicon carbide single crystal substrate and silicon carbide raw material powder are provided in a graphite vessel. Arsenic or an arsenic compound is added to the silicon carbide raw material powder. A mixed gas obtained by mixing a gas containing arsenic with a raw material gas formed by heat sublimation of the silicon carbide raw material powder is supplied to the silicon carbide single crystal substrate to grow a silicon carbide single crystal containing arsenic. Arsenic as an n-type dopant controls the resistivity of the silicon carbide single crystal. Because it has an atomic radius equivalent to silicon, it does not compress or expand the crystal, whereby crystalline distortion is less likely to occur. As a result, formation of heterogeneous polymorphism is suppressed.

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